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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,257	09/24/2003	Satoshi Machida	OKI.572	3286

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VOLENTINE FRANCOS, & WHITT PLLC
ONE FREEDOM SQUARE
11951 FREEDOM DRIVE SUITE 1260
RESTON, VA 20190

EXAMINER

PERKINS, PAMELA E

ART UNIT PAPER NUMBER

2822

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/668,257

Applicant(s)

MACHIDA, SATOSHI

Examiner

Pamela E. Perkins

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the filing of the election on 11 August 2005.

Claims 3 and 4 are pending; claims 1 and 2 have been cancelled.

Election/Restrictions

Applicant's election without traverse of group II, claims 3 and 4 in the reply filed on 11 August 2005 is acknowledged.

Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group I, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11 August 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (6,151,120) in view of Fujisawa et al. (6,226,074).

Matsumoto et al. disclose a precision-of-register measuring method where a resist film is formed on a wafer having a pair of spaced mark patterns; forming a first rendering pattern by rendering on the wafer a mask pattern symmetrical in the direction of the arrangement of the pair of mark patterns as a result of a first exposure in register

with the register mark pattern; forming a second rendering pattern by rendering on the wafer the mask pattern as a result of a second exposure in register with the register mark pattern; and calculating the precision of register by $(X1+X2)/2-(X3+X4)/2$ where, in the register direction of the mask patterns, the coordinate of one side of one of the pair of register mark patterns is $X1$, the coordinate of one side of the other of the pair of register mark patterns and symmetrical to the one side of the one register mark pattern is $X2$, and the coordinates of two sides of the resist pattern are $X3$ and $X4$ (col. 6, lines 26-55; col. 19, line 56 thru col. 20, line 67).

Matsumoto et al. do not disclose developing to form a resist pattern.

Fujisawa et al. disclose a precision-of-register measuring method where a resist film is formed on a wafer having a pair of spaced mark patterns; forming a first rendering pattern by rendering on the wafer a mask pattern symmetrical in the direction of the arrangement of the pair of mark patterns as a result of a first exposure in register with the register mark pattern; forming a second rendering pattern by rendering on the wafer the mask pattern as a result of a second exposure in register with the register mark pattern; developing to form a resist pattern where the first rendering pattern and the second rendering pattern overlap; and calculating the precision of register (col. 2, lines 45-65; col. 13, line 53 thru col. 14, line 26).

Since Matsumoto et al. and Fujisawa et al. are both from the same field of endeavor, a precision-of-register measuring method, the purpose disclosed by Fujisawa et al. would have been recognized in the pertinent art of Matsumoto et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Matsumoto et al. by developing to form a resist pattern as taught by Fujisawa et al. to increase accuracy of exposure (col. 2, lines 34-44).

Referring to claim 4, Fujisawa et al. disclose the mark pattern has a simple rectangular form (Fig. 1; col. 6, lines 41-52).

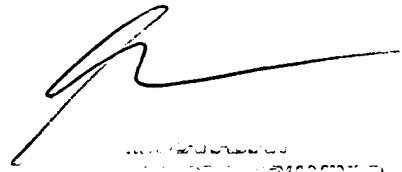
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela E. Perkins whose telephone number is (571) 272-1840. The examiner can normally be reached on Monday thru Friday, 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PEP



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PAMELA E. PERKINS
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